10000371.120202

REMARKS

The foregoing amendments have been made to a specification translated from Italian for greater consistency with U.S. idiom and practice.

Respectfully Submitted,

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HFM:cnt

Appendix B

Entire Specification and Claims as Amended March 14, 2002

Insertions And Deletions Shown

19198371.128312

PORTABLE CELLULAR TELEPHONE AND COMMUNICATION SYSTEM THEREOF

DESCRIPTIONBackground of the Invention

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The present invention relates to a portable cellular telephone and relevant—associated communication system with telematic services supplied by telecommunications stations and/or networks.

In recent times, telecommunications networks have experienced an extremely fast development spreading to every society level and making available to subscribers a large number of remote access services through special terminals.

SaidThe telematic services range from Internet connectivity to interactions with other network types, which may be identified by a wide geographical coverage, such as a cellular telephone network, or have a local diffusion, such as a company network, or just be simple stations for supplying said—services, such as a computer. Also the—services having access through special smartcards connected with the terminals are included in this range of telematic services.

Therefore, subscribers need to use a plurality of terminals to provide interaction with saidthe telematic services, involving consequent encumbrance and managementing problems.

In addition, some of these terminals, in particular those using radio transmissions, such as cellular telephones, expose the subscriber's body to very close radio emissions. Therefore, it is obvious how such exposures are dangerous for the subscriber, and how, increasing the number of terminals determining—causing such

harmful radio emissions in contact with the subscriber, would be extremely harmful.

Summary of the Invention

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It is the an object of the present invention to solve the above drawbacks and provide a portable cellular telephone and associated relevant communication system with telematic services supplied by telecommunications stations and/or networks, having a more efficient and improved performance with respect to existing solutions.

<u>Withi</u>#n this framework, it is the <u>a</u> main object of the present invention to provide a portable cellular telephone and <u>associated</u>relevant communication system with telematic services supplied by telecommunications stations and/or networks allowing concentration of the terminals required for <u>a</u> subscriber's interaction with the telematic services in one terminal alone, which is not harmful <u>for</u> to the subscriber.

Europeant patent application EP-A-781018 discloses a mobile phone device in two parts, one part containing the high-frequency circuits and the other the low-frequency circuits. These two parts can communicate through wire, infrared or ultrasound connection, so that the high-frequency part is capable of being placed at a location where the quality of the radio link is good, while the user can still move relatively freely holding the low-frequency part.

In order to achieve such aims, it is the an object of the present invention to provide a portable cellular telephone and associated relevant communication system with telematic services supplied by telecommunications stations and/or networks, incorporating the features of the annexed claims, which form an integral part of the description herein.

Description of the Drawings

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Further objects, features and advantages of the present invention will become apparent from the following detailed description and annexed drawings, which are supplied by way of non limiting example, wherein:

- Fig. 1 shows is an exploded prospective view of a portable cellular telephone according to the present invention;
 - Fig. 2 is shows—a side view of the telephone of Fig. 1;
- Fig. 3 <u>is shows</u> a block diagram of the parts forming the telephone of Fig. 1;
 - Fig. 4 <u>is shows</u> a possible flow diagram of the a portable cellular telephone according to the present invention;
- Fig. 5 shows is a schematic diagram showing a communication system with telematic services supplied by telecommunications stations and/or networks according to the present invention.

Description of the Preferred Embodiment

The inventive idea lies in the use of a cellular telephone as a communication terminal with further telecommunications networks

or stations associated to associated with telematic services, which cellular telephone is aptable to perform usual common terminal functions towards with respect to the cellular telephony network. According to the present invention, this cellular telephone can be separated in two sections, a first part concentrating the subscriber interface functions, saidthe first section also comprising having a transceivering means towards in communication with further telecommunications networks or stations associated to with distribution of telematic services, whereas the second part of the cellular telephone concentrates houses the power functions associated to associated with the cellular telephone network, which are potentially harmful for harmful to the subscriber.

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So, Figure 1 is representingshows a portable apparatus for cellular telephone, indicated in general with 10, which consists of a first part 11, comprising including the telephone audio section, with earphone 12 and microphone 13, a keyboard 14 and an LCD display 15 which perform, i.e. the functions of subscriber interface functions, and a second part 16 containing the entire power radio section for reception and transmission from and to the cellular network. To For this purpose, the second part comprises has an appropriate antenna 17 and a GSM dual-band DCS transceiver. For simplicity's sake, reference will be made to GSM system; however, any other current or future standard already applied

nowadays or to be applied in the future (such as UMTS standard) can be used. The antenna may be either of the "stubby" or "patch" type.

The first and second parts can be assembled together and separated from each other by means of clips indicated by way of example with 18. When separated, the first and second parts are in communication with each other by means of via a wireless bidirectional connection.

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This connection can be advantageously obtained by a low power radio link, such as at 2.4 GHz frequency with internal antennas, for example provided directly in the printed circuits of the apparatus. Connection can be obtained with any desired protocol, preferably an encrypted -protocol, obtaining e.g. a BlueTooth standard radio link.

When both parts are assembled, they may have a bidirectional connection through a pair of appropriate connectors 19, joining automatically to each other.

The second part 16 may provide have a connector 20 for recharging its internal batteries and also the internal batteries of the first part 11 through the connectors 19.

As shown in Fig. 4, the second part 16 (also called "power transceiving part") can be equipped with a further interfacing connector 21 for connection to a personal computer 22, to allow a direct digital data exchange with the cellular network (such as to use the second part 16 for a "modem" function). The first part 11,

or "control and audio part", may advantageously comprise—have an interface 23, such as an infrared one, in particular IrDA, for data exchange with the personal computer, i.e. the telematic services station.

Fig. 3 shows a preferred embodiment of the apparatus according to the present invention.

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In this preferred embodiment, the power part 16 comprises includes the transceiver section 24 (GSM-DCS or other) mentioned above - which is not further described nor represented being—since it is a common one and easily conceivable by a man skilled in the art - and a connector 25 for a subscriber identifying module, such as a SIM or UIM, to get access to the network. The part 16 may also comprise—have a buzzer 26, to be activated by the part 11 to facilitate its research finding it should it get lost, and a vibration call indicator 27, which is useful to signal the subscriber about the arrival of a call when both parts are assembled forming one solea single apparatus. In addition (or alternatively) also—the part 11 can have its own vibration call indicator 28. This is useful whenever the power section, for example, is located somewhere else (or placed in a case) and only the part 11 is hept in one's pocket.

Always with rReferencinge to—Fig. 3, besides the already mentioned earphone 12, microphone 13, display 15 and keyboard 14, the part 11 may also comprise—have a connector for SmartCard 29,

i.e. wherein a Smartcard can be housed connected for enabling access to telematic services, and a connector for Multimedia Card 30, i.e. a Flash data memory card or analogous the like.

Fig. 5 shows a communication system with telematic services supplied by telecommunication stations and/or networks, according to the present invention.

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As it—can be seen in this figureFig. 5, several telephones according to the present invention (each one consisting having its of theirown respective parts 11,16) can carry on a dialog with the cellular network 31, to which also conventional cellular telephones can have access as well. In addition, each of the telephones according to the present invention may have their part 11 connected (as short distance) to a private station or network 32 through the interface 23 or another wireless communicating meansdevice. All units 11 or just the enabled units 11 may connect to this private station or network, e.g. through the SmartCard 29 or Multimedia Card 30.

For example, the station 32 may be installed in the house of the <u>a</u> cellular telephone subscriber so as to have a private communication line between home and portable telephone, or be installed within companies wanting an internal communication system (with <u>reserved private</u> access for company employees only) or a <u>reserved dedicated communication</u> system with <u>for customers</u>, who can

subscribe the service or obtain it as a "bonus". The latter utilization may be advantageous, e.g., for banks.

From the above description the features of the present invention as well as the <u>associated</u>relevant advantages thereof are clear.

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Through its separable control and audio part, the portable cellular telephone according to the present invention is advantageously aptable to interact not only with the standard cellular network, but also with a further station or network through anotherfurther wireless connecting means—device arranged on saidthe control and audio part. Advantageously, the subscriber can utilize saidthe control and audio part to have access also to other services differing—not provided byfrom the cellular telephony network, such as company services, bank services or household network services. Moreover, the availability of smartcards and multimedia card connectors allows configuration of saidthe control and audio part like—as a real—true multiservice terminal.

The portable cellular telephone according to the present invention can be separated, whenever desired, into a power part to be placed at distance from the subscriber body, and a control and audio part with all subscriber interface functions usually available in a conventional cellular telephone, without any high power radio irradiations located near the subscriber's body.

The portable cellular telephone according to the present invention will advantageously use a radio transmission for connection between the two telephone parts, whose power is much lower than required for GSM transmission.

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It is obvious that many changes are possible, for the man skilled in the art, to the portable cellular telephone and communication system with telematic services supplied by telecommunications stations and/or networks thereof described above by way of example, without departing from the novelty and spirit of the innovative idea, and it is also clear that in practical actuation—application of the invention the components may often differ in form and size from the ones described and be replaced with technically equivalent elements.

For example, other functions and accessories may be provided, such as an FM radio, MP3 audio decoder functions, Voice Memo and Dialling, Webap Browser, etc.

The use of a standard radio link between the two parts will also allow connection of the control and audio module, other than connection with its own power part., to other equipment compatible with this standard. The power part 16 can also be used on its own as a GSM transceiving unit connected to a computer (advantageously preferably a portable one) for practical data exchange through the network.

CLAIMS

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1 (amended). A portable cellular telephone, having a first part comprising interface means for performing subscriber interface functions (12, 13, 14, 15) and a second part comprising transceiver means for transmitting and receiving section (17, 24) for over a telecommunications cellular telephone network (31), the means for performing subscriber interface functions (12, 13, 14, 15) being gathered in a first part (11) of said portable cellular telephone, whereas the transmitting and receiving section (17, 24) for a cellular telephone network (31) is in a second part (16) of said portable cellular telepone, said first part (11) and second part (16) being assembled together releasablye from connected to each other, said first (11) part and second part (16) being in bidirectional communication with each other when separated, characterized in that said first part further comprisinges means for wireless communicationng with a further telecommunications network or with a telecommunication station (22, -32).

2 (amended). A portable cellular telephone, according to claim 1, characterized in that the wherein said means for -wireless bidirectional communication occurs by comprises a radio.

3 (amended). A portable cellular telephone, according to claim 2, characterized in that wherein when said parts are assembled, wireless bidirectional communication is replaced by a direct transmission through—connected, an electric connection that

establishes upon mutual assembly of said first part (11) and said second part (16) direct communication takes place therebetween.

4 (amended). A portable cellular telephone, according to claim 3, characterized in that wherein the second part (16)—further comprises a connector (22)—for the reception and transmission of digital data through the cellular network—(31).

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5 (amended). A portable cellular telephone, according to claim 1, characterized in that wherein the wireless communicating means for wireless communication of the first part (11) consist of comprises an infrared connection—(23).

6 (amended). A portable cellular telephone, according to claim 1, characterized in that wherein said infrared connection (23) puts the first part (11)—in communication with a computer—(22).

7 (amended). A portable cellular telephone, according to claim 1, wherein characterized in that said means for wireless communicationing means of the first part (11) consist of a comprises a short distance connection with to the station or network (32).

8 (amended). A portable cellular telephone, according to claim 1, wherein characterized in that said means for wireless communicationing meanns of the first part (11) consist of the comprises a standard radio link utilized for the bidirectional communication with the second part (16).

9 (amended). A portable cellular telephone, according to claim 1, characterized in that wherein said first part (11)

comprises a SmartCard connector for a SmartCard (29) and or Multimedia Card connector (30).

10 (amended). A portable cellular telephone, according to claim 1, characterized in that wherein said means for performing subscriber interface functions (12, 13, 14, 15) comprises a keyboard, a display and means for performing audio functions.

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11 (amended). A portable cellular telephone, according to claim 1, characterized in that it comprises comprising means for performing FM radio functions and/or MP3 audio decoder functions and/or Voice Memo and Dialling functions and/or Webap Browser functions.

12 (amended). A communication system with telematic services supplied by telecommunication stations and/or networks, which provides utilization of subscriber terminals for information exchange with said telecommunication stations or networks, characterized comprising in that thea subscriber terminal comprises which includes a portable cellular telephone—as claimed in claim 1 having a first part comprising interface means for performing subscriber interface functions and a second part comprising transceiver means for transmitting and receiving over a telecommunications cellular telephone network, said first part and second part being releasably connected to each other, said first part and second part being in bidirectional communication with each other when separated, said first part further comprising means for

wireless communication with a further telecommunications network or with a telecommunication station, said communications system further comprising means for enabling at least one of the telecommunication stations or networks (32) apt to communicate directly and wireless with said means for wireless communicating means (23) on.

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13 (amended). A communication system with telematic services supplied by telecommunication stations and/or networks, according to claim 12, characterized in that wherein the telecommunication station or telecommunication network (22, 32)—is a company internal communication station or network and/or a station or network for enabled—authorized customers.

14 (amended). A communication system with telematic services supplied by telecommunication stations and/or networks, according to claim 13, characterized in that wherein said company internal telecommunication station or network and/or station or network for enabled—authorized customers is a bank services network.

15 (amended). A communication system with telematic services supplied by telecommunication stations and/or networks, according to claim 12, characterized in that wherein said telecommunication station or network (22,32)—is an internal household communication station or network.

ABSTRACTAbstract of the Disclosure

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A protable cellular telephone, has two separable parts, one comprising means—for performing subscriber interface functions (12, 13, 14, 15)—and another for performing a—transmitting and receiving section—(17, 24) functions on for a cellular telephone network, (31), the means for performing subscriber interface functions—(12, 13, 14, 15) being gathered in a first part—(11) of said portable cellular telephone, whereas the transmitting and receiving section (17, 24) for a cellular telephone network—(31) is in a second part—(16) of said portable cellular telephone, said the first—(11) and second—parts—(16)—being in bidirectional communication with each other when separated.

According to the invention, said first part comprises means for The part for performing interface functions is adapted for wireless communication with a further station or network—(22, 32).